

28, 2800 feet. This species is not uncommon in the North-eastern States.

Nitopus montanus Banks.

Chimney Lake, August 20, 3000 feet; beneath birch bark, August 23, 3000 feet; on the summit, 19th August, 5215 feet. This species was previously known only from Mt. Washington, N. Hamp.; these specimens vary much in the depth of markings.

Liobunum longipes Weed.

Beneath birch bark, 23d August, 3000 feet. Found in the Northeastern States, the northern specimens have quite short legs. Specimens from Mt. Washington agree exactly with the Katahdin specimens.

Records of New Jersey and Pennsylvania Orthoptera.

BY JAMES A. G. REHN.

The following records are published mainly as contributions to a faunistic study of the Orthoptera of the country adjacent to Philadelphia. Much of the data relates to the pine barrens of New Jersey, which have been rather closely examined on a number of trips.

BLATTIDÆ.

Nyctibora sericea Burmeister.

Delaware River Wharves, Philadelphia, Penna. C. Few Seiss.

This species has once been recorded from New England.

ACRIDIDÆ.

Acridium arenosum (Burmeister).

Tettix arenosus Auct.

Glenside, Montgomery Co., Pa. May 5, 1901. H. L. Viereck.

Paratettix cucullatus (Burmeister).

Iona, Gloucester Co., New Jersey. May 26, 1902. E. Daecke.

Tettigidea parvipennis (Harris).

Lucaston, Camden Co., New Jersey. April 14, 1902. E. Daecke. Clementon, Camden Co., New Jersey. April 21, 1902. E. Daecke. May 14, 1901. J. A. G. Rehn. Riverton, Burlington Co., New Jersey. May 3, 1901. J. A. G. Rehn. Manumuskin, Cumberland Co., New Jersey. April 28, 1902. E. Daecke. Castle Rock, Delaware Co., Pa. March 25, 1902. E. Daecke. Philadelphia, Pa. Sept. 24, 1902. J. A. G. Rehn.

The last record was during a time of migration, great numbers of the species being noted in various sections of the city.

Syrbula admirabilis (Uhler).

Manumuskin, Cumberland Co., N. J., Sept. 15, 1902. E. Daecke. Taunton, Burlington Co., N. J., Sept. 6, 1902. W. Stone.

Orphulella olivacea (Morse).

Atlantic City, Atlantic Co., N. J. Sept. 11, 1902. J. A. G. Rehn.

Orphulella pelidna (Burmeister).

Medford, Burlington Co., N. J. Sept. 5 and 7, 1902. W. Stone. Taunton, Burlington Co., N. J. Sept. 6, 1902. W. Stone. Riverton, Burlington Co., N. J. Sept. 8, 1902. H. L. Viereck. Bear Swamp, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn.

This bog loving species is exceedingly common on the cranberry bogs, and has been taken outside of the pine barren section at Riverton and Westville.

Orphulella speciosa (Scudder).

Ricketts, Wyoming Co., Pa. Sept. 1, 1900. S. Brown. Ganoga Lake, Sullivan Co., Pa. Sept. 3, 1900. S. Brown.

These appear to be the first Pennsylvania records for this form.

Chloealtis conspersa (Harris).

Between Atsion and Quaker Bridge, Burlington Co., N. J.

Sept. 2, 1901. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Pennsylvania. S. F. Aaron.

This boreal species occurring in the isolated bogs of the pine barren region adds further proof to the conclusion that these "islands" have a greater preponderance of boreal than austral types inhabiting them. The temperature of the bogs is considerably lower than that of the surrounding pine land, thus preserving an Alleghanian element which is testified to by the plants and mammals.

***Stenobothrus curtipennis* (Harris).**

Ricketts, Wyoming Co., Pa. Sept. 1, 1900. S. Brown. Bellasylva, Wyoming Co., Pa. Aug., 1900. S. Brown. Ganoga Lake, Sullivan Co., Pa. Sept. 2, 1900. S. Brown.

***Arphia sulphurea* (Fabricius).**

Castle Rock, Delaware Co., Pa. July 18 and 24, 1902. E. Daecke. Manumuskin, Cumberland Co., N. J. April 28, 1902. E. Daecke. Clementon, Camden Co., N. J. May 14, 1901. J. A. G. Rehn.

***Hippiscus phoenicopterus* (Germar).**

Iona, Gloucester Co., N. J. June 2, 1902. E. Daecke.

***Spharagemon collare wyomingianum* (Thomas).**

Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn.

***Scirtetica marmorata* (Harris).**

Iona, Gloucester Co., N. J. July 13, 1902. E. Daecke. DaCosta, Atlantic Co., N. J. July 20, 1902. E. Daecke. Atsion, Burlington Co., N. J. Sept. 2, 1901. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Between Harris and White Horse, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn. Taunton, Burlington Co., N. J. Sept. 7, 1902. W. Stone. Medford, Burlington Co., N. J. Sept. 5, 1902. W. Stone.

The western limit of this species in New Jersey is seen from

Tettigidea parvipennis (Harris).

Lucaston, Camden Co., New Jersey. April 14, 1902. E. Daecke. Clementon, Camden Co., New Jersey. April 21, 1902. E. Daecke. May 14, 1901. J. A. G. Rehn. Riverton, Burlington Co., New Jersey. May 3, 1901. J. A. G. Rehn. Manumuskin, Cumberland Co., New Jersey. April 28, 1902. E. Daecke. Castle Rock, Delaware Co., Pa. March 25, 1902. E. Daecke. Philadelphia, Pa. Sept. 24, 1902. J. A. G. Rehn.

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Orphulella olivacea (Morse).

Atlantic City, Atlantic Co., N. J. Sept. 11, 1902. J. A. G. Rehn.

Orphulella pelidna (Burmeister).

Medford, Burlington Co., N. J. Sept. 5 and 7, 1902. W. Stone. Taunton, Burlington Co., N. J. Sept. 6, 1902. W. Stone. Riverton, Burlington Co., N. J. Sept. 8, 1902. H. L. Viereck. Bear Swamp, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn.

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Chloealtis conspersa (Harris).

Between Atsion and Quaker Bridge, Burlington Co., N. J.

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***Stenobothrus curtipeennis* (Harris).**

Ricketts, Wyoming Co., Pa. Sept. 1, 1900. S. Brown. Bellasylva, Wyoming Co., Pa. Aug., 1900. S. Brown. Ganoga Lake, Sullivan Co., Pa. Sept. 2, 1900. S. Brown.

***Arphia sulphurea* (Fabricius).**

Castle Rock, Delaware Co., Pa. July 18 and 24, 1902. E. Daecke. Manumuskin, Cumberland Co., N. J. April 28, 1902. E. Daecke. Clementon, Camden Co., N. J. May 14, 1901. J. A. G. Rehn.

***Hippicus phoenicopterus* (Germar).**

Iona, Gloucester Co., N. J. June 2, 1902. E. Daecke.

***Spharagemon collare wyomingianum* (Thomas).**

Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn.

***Scirtetica marmorata* (Harris).**

Iona, Gloucester Co., N. J. July 13, 1902. E. Daecke. DaCosta, Atlantic Co., N. J. July 20, 1902. E. Daecke. Atission, Burlington Co., N. J. Sept. 2, 1901. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Between Harris and White Horse, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn. Taunton, Burlington Co., N. J. Sept. 7, 1902. W. Stone. Medford, Burlington Co., N. J. Sept. 5, 1902. W. Stone.

The western limit of this species in New Jersey is seen from

the latter three of the above records to be equivalent to the western edge of the pine barrens.

Trimerotropis citrina Scudder.

Lehigh Gap, Lehigh Co., Pa. July 20, 1902. J. A. G. Rehn.

This species has been recorded east of the Mississippi but once before, that record being from Maryland (McNeill, Proc. U. S. Nat. Mus., xxiii, p. 427). The collection of the Academy also contains one specimen from Roan Station, Tennessee, taken September 3, 1901, by Mr. Lancaster Thomas.

In describing this species McNeill (*vide supra*) says "process of the metazone decidedly obtuse angulate, with the margins straight and the tip rounded."

The specimens above mentioned agree in every particular except this one, the posterior process of the metazone being rectangulate, with the tip angulate and not rounded.

Schistocerca damnifica (Saussure).

Manumuskin, Cumberland Co., N. J. April 28, 1902. E. Daecke. Clementon, Camden Co., N. J. April 21, 1902. E. Daecke. Clementon, Camden Co., N. J. May 12 and 14, 1901. H. L. Viereck and J. A. G. Rehn. Clementon, Camden Co., N. J. May 6 and 22, 1899. H. L. Viereck. Westville, Gloucester Co., N. J. May 18. Dr. H. Skinner. Between head of Batsto River and Speedwell, Burlington Co., N. J. June 18, 1901. J. A. G. Rehn.

Schistocerca alutacea (Harris).

Acridium rubiginosum Scudder, Boston Journ. Nat. Hist., vii, p. 467, 1862.

The above synonymy is established after an examination of the sixty-seven available local specimens. The striped phase (*alutacea* s. st.) and the reddish form with the mottled tegmina (*rubiginosum* Scudder) are connected by a series of seventeen specimens, which show indisputable evidence of intergradation. In many reddish specimens the dorsal line is well marked, in others present on the pronotum alone, and in some green specimens the tegmina are distinctly mottled. The structural differences ascribed to the two forms are not of any value, specimens typical of either one of the forms, according to these slight

structural discrepancies, being the reverse when coloration is considered.*

Angelsea, Cape May Co., N. J. Sept. 1, 1902. E. Daecke. DaCosta, Atlantic Co., N. J. July 28, 1902. E. Daecke. Manumuskin, Cumberland Co., N. J. Aug. 17, 1902. E. Daecke. Taunton, Burlington Co., N. J. Sept. 6, 1902. W. Stone. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Atsion, Burlington Co., N. J. Sept. 2, 1902. J. A. G. Rehn. Bear Swamp, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Between Harris and White Horse, Aug. 13, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn. Tinicum, Delaware Co., Pa. Aug. 31, 1902. W. Stone.

Melanoplus fasciatus (Walker).

Bellasylla, Wyoming Co., Pa. July 13-20, 1901. W. Stone. Lehigh Gap, Lehigh Co., Pa. July 20, 1902. J. A. G. Rehn. Atsion, Burlington Co., N. J. Sept. 2, 1901. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Between Harris and White Horse, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. DaCosta, Atlantic Co., N. J. July 28, 1902. E. Daecke. Manumuskin, Cumberland Co., N. J. Oct. 20, 1902. E. Daecke.

This species is abundant in bogs and on scrub land adjoining the same. At the fifth locality cited sixteen specimens were captured in a short time.

Melanoplus femoratus (Burmeister).

Lehigh Gap, Lehigh Co., Pa. July 20, 1902. J. A. G. Rehn. Crum Creek, Delaware Co., Pa. July 26, 1902. E. G. Vantatta. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Bear Swamp, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Between Harris and White Horse, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Atsion, Burlington Co., N. J. Sept. 2, 1901. J. A. G. Rehn.

Melanoplus femur-rubrum (DeGeer).

DaCosta, Atlantic Co., N. J. July 28, 1902. E. Daecke.

* For further remarks concerning this species see Rehn, ENT. NEWS, xiii, p. 89.

Atlantic City, Atlantic Co., N. J. Sept. 11, 1902. J. A. G. Rehn. Angelsea, Cape May Co., N. J. Sept. 1, 1902. E. Daecke. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn. Medford, Burlington Co., N. J. Sept. 5 and 7, 1902. W. Stone. Taunton, Burlington Co., N. J. Sept. 6, 1902.

***Melanoplus punctulatus* (Scudder).**

Bellasylla, Wyoming Co., Pa. July 13-20, 1901. W. Stone.

***Melanoplus scudderi* (Uhler).**

Medford, Burlington Co., N. J. Aug. 11 and 13, 1902. J. A. G. Rehn. Atsion, Burlington Co., N. J. Sept. 2, 1902. J. A. G. Rehn. DaCosta, Atlantic Co., N. J. July 19.

***Paroxya floridiana* (Thomas).**

Tinicum, Delaware Co., Pa. G. M. Greene. Riverton, Burlington Co., N. J. Sept. 8, 1901. H. L. Viereck. Bear Swamp, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn. Speedwell, Burlington Co., N. J. Aug. 12, 1902. J. A. G. Rehn. Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn.

TETTIGONIDÆ.

***Scudderia furcata* Brunner.**

Clementon, Camden Co., N. J. Aug. 31, 1902. J. A. G. Rehn. Mt. Airy, Philadelphia Co., Pa. Oct. 3, 1902. E. Daecke.

***Scudderia curvicauda* (DeGeer).**

Between Harris and White Horse, Burlington Co., N. J. Aug. 13, 1902. J. A. G. Rehn.

***Amblycorypha oblongifolia* (DeGeer).**

DaCosta, Atlantic Co., N. J. Aug. 3, 1902. E. Daecke. Atsion, Burlington Co., N. J. Sept. 2, 1901. J. A. G. Rehn. Absecon, Atlantic Co., N. J. Mt. Airy, Philadelphia Co., Pa. Oct. 1902. E. Daecke.

***Amblycorypha rotundifolia* (Scudder).**

Manumuskin, Cumberland Co., N. J. Oct. 20, 1902. E. Daecke.